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10/539,394

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Dzevdet Burazerovic

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EXAMINER

ABRISHAMKAR, KAVEH

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/539,394	Applicant(s) BURAZEROVIC ET AL.	
	Examiner KAVEH ABRISHAMKAR	Art Unit 2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/15/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the communication filed on June 15, 2005. Claims 1-26 were received for consideration. No preliminary amendments for the claims were received.
2. Claims 1-26 are currently pending consideration.

Information Disclosure Statement

3. An initialed and dated copy of Applicant's IDS form 1449, received on 6/15/2005, is attached to this Office action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,4-7,15, and 18-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Chaubert (U.S. Patent 7,212,636).

Regarding claim 1, Chaubert discloses:

A method of encrypting a video data stream, said video data stream partitioned into units based upon a type of data contained within said units, comprising:

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determining for each unit the type of data contained within said unit (column 2, lines 52-56: *determining the type of frame*); and

encrypting a particular unit or a portion of said particular unit based upon the type of data contained within said unit (column 2, lines 52-66: *different encryption applied to the different type of frame*).

Claim 4 is rejected as applied above in rejecting claim 1. Furthermore, Chaubert discloses:

The method of claim 1, further including excluding a particular unit from encryption based upon the type of data contained within said particular unit (column 4, lines 32-33: *wherein the differential data blocks are unencrypted*).

Claim 5 is rejected as applied above in rejecting claim 1. Furthermore, Chaubert discloses:

The method of claim 1, wherein each unit containing the same type of data is always encrypted (column 2, lines 52-56).

Claim 6 is rejected as applied above in rejecting claim 1. Furthermore, Chaubert discloses:

The method of claim 1, wherein each unit containing the same type of data is encrypted identically (column 2, lines 52-56).

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Claim 7 is rejected as applied above in rejecting claim 1. Furthermore, Chaubert discloses:

The method of claim 1, wherein units containing different types of data are encrypted using different encryption methods, different encryption keys or both different encryption methods and different encryption keys (column 2, lines 52-64: *wherein different keys or different algorithms may be used*).

Regarding claim 15, Chaubert discloses:

A system for encrypting a video data stream, said video data stream partitioned into units based upon a type of data contained within said units comprising:

means for determining for each unit the type of data contained within said unit (column 2, lines 52-56: *determining the type of frame*); and

means for encrypting a particular unit or a portion of said particular unit based upon the type of data contained within said unit (column 2, lines 52-66: *different encryption applied to the different type of frame*).

Claim 18 is rejected as applied above in rejecting claim 15. Furthermore, Chaubert discloses:

The system of claim 15, further including means for not encrypting a particular unit based upon the type of data contained within said unit (column 4, lines 32-33: *wherein the differential data blocks are unencrypted*).

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Claim 19 is rejected as applied above in rejecting claim 15. Furthermore, Chaubert discloses:

The system of claim 15, wherein said means for encrypting is adapted to always encrypt units containing the same type of data (column 2, lines 52-56).

Claim 20 is rejected as applied above in rejecting claim 15. Furthermore, Chaubert discloses:

The system of claim 15, wherein said means for encrypting is adapted to identically encrypt all units containing the same type of data (column 2, lines 52-56).

Claim 21 is rejected as applied above in rejecting claim 15. Furthermore, Chaubert discloses:

The system of claim 15, wherein said means for encrypting is adapted to encrypt units containing different types of data by different encryption methods, different encryption keys or both different encryption methods and different encryption keys (column 2, lines 52-64: *wherein different keys or different algorithms may be used*).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-3, 8-14, 16-17, and 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chaubert (U.S. Patent 7,212,636) in view of Arakawa et al. (U.S. Patent Pub. No. US 2002/0164024 A1).

Claim 2 is rejected as applied above in rejecting claim 1. Chaubert does not explicitly disclose that the intra data is selected from the group consisting of header data, intra data, and inter data. Arakawa teaches fragmenting video frames, and based on the type of frame, I (intra frames, B frames, or P frames, encryption is performed on the frames (Arakawa: paragraphs 0040-0041). Chaubert and Arakawa are analogous arts because both pertain to encrypting and fragmenting video streams. It would have been obvious to one of ordinary skill in the art to use base the fragmentation based I, P and B frames to make fragmentation based on playback time possible (Arakawa: paragraph 0040).

Claim 3 is rejected as applied above in rejecting claim 2. Chaubert does not explicitly disclose wherein said intra data is selected from the group consisting of I block data and SI block data and wherein said inter data is selected from the group consisting of P block data, B block data and SP block data. Arakawa discloses that the frames are divided into I (intra) frames, P (predictive frame), and B frames (Arakawa: paragraph 0040). Chaubert and Arakawa are analogous arts because both pertain to encrypting

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and fragmenting video streams. It would have been obvious to one of ordinary skill in the art to use base the fragmentation based I, P and B frames to make fragmentation based on playback time possible (Arakawa: paragraph 0040).

Regarding claim 8, Chaubert discloses:

A method of encrypting a video data stream, said video data stream partitioned into NAL units formed from partitioned slices, each NAL unit containing either header data, intra data or inter data, comprising:

determining for each unit whether the unit contains header data, intra data or inter data (column 2, lines 52-56: *determining the type of frame*); and

encrypting a particular unit or a portion of said particular unit based upon whether said particular NAL unit contains header data, intra data or inter data (column 2, lines 52-66: *different encryption applied to the different type of frame*).

Chaubert does not explicitly disclose that the units are NAL units and that the differentiating is done based on whether the data is a header, inter-data or intra data. Arakawa teaches fragmenting video frames, and based on the type of frame, I (intra frames, B frames, or P frames, encryption is performed on the frames (Arakawa: paragraphs 0040-0041). Chaubert and Arakawa are analogous arts because both pertain to encrypting and fragmenting video streams. It would have been obvious to one of ordinary skill in the art to use base the fragmentation based I, P and B frames to make fragmentation based on playback time possible (Arakawa: paragraph 0040).

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Claim 9 is rejected as applied above in rejecting claim 8. Furthermore, Arakawa discloses:

The method of claim 8, wherein said intra data is selected from the group consisting of I block data and SI block data and wherein said inter data is selected from the group consisting of P block data, B block data and SP block data (Arakawa: paragraph 0040).

Claim 10 is rejected as applied above in rejecting claim 8. Furthermore, Chaubert discloses:

The method of claim 8, further including excluding a particular unit from encryption based upon the type of data contained within said particular unit (column 4, lines 32-33: *wherein the differential data blocks are unencrypted*).

Claim 11 is rejected as applied above in rejecting claim 8. Furthermore, Chaubert discloses:

The method of claim 8, wherein each NAL unit containing header data is not encrypted or encrypted identically, each NAL unit containing intra data is not encrypted or encrypted identically, and each NAL unit containing inter data is not encrypted or encrypted identically (column 2, lines 52-56).

Claim 12 is rejected as applied above in rejecting claim 8. Furthermore, Chaubert discloses:

The method of claim 8, wherein at least two types of NAL units selected from the group of NAL unit types consisting of NAL units containing header data, NAL units containing intra data and NAL units containing inter data are encrypted using, for each type of NAL unit, different encryption methods, different encryption keys or both different encryption methods and different encryption keys (column 2, lines 52-64: *wherein different keys or different algorithms may be used*).

Claim 13 is rejected as applied above in rejecting claim 8. Furthermore, Arakawa discloses:

The method of claim 8, wherein said portion of said particular NAL unit to be encrypted is selected from the group consisting of NAL headers, one or more fields within said NAL headers, RBSP fields, one or more sub-fields within said RBSP fields and selected groups of bits within said NAL unit (paragraph 0091).

Claim 14 is rejected as applied above in rejecting claim 8. Furthermore, Arakawa discloses:

The method of claim 8, further including embedding decryption information in NAL headers, in one or more fields within said NAL headers, in RBSP fields, in one or more sub-fields within the RBSP fields or in selected groups of bits within said NAL unit (Arakawa: paragraph 0040).

Claim 16 is rejected as applied above in rejecting claim 15. Chaubert does not explicitly

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disclose wherein said type of data is selected from the group consisting of header data, intra data and inter data. Arakawa discloses that the frames are divided into I (intra) frames, P (predictive frame), and B frames (Arakawa: paragraph 0040). Chaubert and Arakawa are analogous arts because both pertain to encrypting and fragmenting video streams. It would have been obvious to one of ordinary skill in the art to use base the fragmentation based I, P and B frames to make fragmentation based on playback time possible (Arakawa: paragraph 0040).

Claim 17 is rejected as applied above in rejecting claim 16. Chaubert does not explicitly disclose wherein said intra data is selected from the group consisting of I block data and SI block data and wherein said inter data is selected from the group consisting of P block data, B block data and SP block data. Arakawa discloses that the frames are divided into I (intra) frames, P (predictive frame), and B frames (Arakawa: paragraph 0040). Chaubert and Arakawa are analogous arts because both pertain to encrypting and fragmenting video streams. It would have been obvious to one of ordinary skill in the art to use base the fragmentation based I, P and B frames to make fragmentation based on playback time possible (Arakawa: paragraph 0040).

Regarding claim 22, Chaubert discloses:

A system of encrypting a video data stream, said video data stream partitioned into NAL units formed from partitioned slices, each NAL unit containing either header data, intra data or inter data, comprising:

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means for determining for each unit whether the unit contains header data, intra data or inter data (column 2, lines 52-56: *determining the type of frame*); and

means for encrypting a particular unit or a portion of said particular unit based upon whether said particular unit contains header data, intra data or inter data (column 2, lines 52-66: *different encryption applied to the different type of frame*).

Chaubert does not explicitly disclose that the units are NAL units and that the differentiating is done based on whether the data is a header, inter-data or intra data. Arakawa teaches fragmenting video frames, and based on the type of frame, I (intra frames, B frames, or P frames, encryption is performed on the frames (Arakawa: paragraphs 0040-0041). Chaubert and Arakawa are analogous arts because both pertain to encrypting and fragmenting video streams. It would have been obvious to one of ordinary skill in the art to use base the fragmentation based I, P and B frames to make fragmentation based on playback time possible (Arakawa: paragraph 0040).

Claim 23 is rejected as applied above in rejecting claim 22. Furthermore, Arakawa discloses:

The system of claim 22, wherein said intra data is selected from the group consisting of I block data and SI block data and wherein said inter data is selected from the group consisting of P block data, B block data and SP block data (Arakawa: paragraph 0040).

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Claim 24 is rejected as applied above in rejecting claim 22. Furthermore, Chaubert discloses:

The system of claim 22, wherein said means for encrypting is adapted to exclude a particular unit from encryption based upon the type of data contained within said particular unit (column 4, lines 32-33: *wherein the differential data blocks are unencrypted*).

Claim 25 is rejected as applied above in rejecting claim 22. Furthermore, Chaubert discloses:

The system of claim 22, wherein said means for encrypting is adapted to not encrypt or to identically encrypt each NAL unit containing header data or is adapted to not encrypt or to identically encrypt each NAL unit containing intra data, and is adapted to not encrypt or to identically encrypt each NAL unit containing inter data (column 2, lines 52-56).

Claim 26 is rejected as applied above in rejecting claim 22. Furthermore, Chaubert discloses:

The system of claim 22, wherein said means for encrypting is adapted to encrypt at least two types of NAL units selected from the group of NAL unit types consisting of NAL units containing header data, NAL units containing intra data and NAL units containing inter data using, for each type of NAL unit, different encryption methods,

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different encryption keys or both different encryption methods and encryption keys
(column 2, lines 52-64: *wherein different keys or different algorithms may be used*).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KAVEH ABRISHAMKAR whose telephone number is (571)272-3786. The examiner can normally be reached on Monday thru Friday 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kaveh Abrishamkar/
Examiner, Art Unit 2131

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/K. A./

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